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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/502,222	07/22/2004	Gianni Mirone	7587.226USWO	1893

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EXAMINER	
FLETCHER III, WILLIAM P	
ART UNIT	PAPER NUMBER
1792	
MAIL DATE	DELIVERY MODE
10/07/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/502,222	MIRONE ET AL.	
	Examiner	Art Unit	
	William P. Fletcher III	1792	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 September 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-5 and 7-24* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *23* is/are allowed.

6)☒ Claim(s) *1-22 and 24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on September 26, 2008, has been entered.

Response to Amendment

2. Claims 1-5 and 7-24 are now pending.

Response to Arguments

3. Applicant's arguments, see the remarks, filed September 26, 2008, with respect to the rejection(s) of claim(s) 1-5 and 7-22 under 35 USC 103(a) in the prior Office action, have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. Applicant has amended the claims to preclude the dual-cure coating of Baumgart. However, upon further consideration, a new ground(s) of rejection is made in view of Li et al. (US 6,485,794 B1).

Claim Objections

4. Claim 10 is objected to because of the following informalities: This claim is an exact duplicate of claim 9. Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claims 1-5, 7-22, and 24 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

A. Applicant has amended to read: "wherein the one or more acrylic-based resins are not crosslinkable by exposure to thermal radiation" and "wherein the paint does not undergo a chemical reaction caused by exposure to thermal radiation of temperatures up to 60°C." These proposed negative limitations do not have support in the originally filed disclosure.

B. It has been held that negative limitations, which did not appear in the specification as-filed, introduce new concepts and violate the description requirement of 35 USC 112. *Ex parte Grasselli et al.*, 231 USPQ 393 (BdPatApp&Int 1983): "It might be added that the express exclusion of certain elements implies the permissible inclusion of all other elements not so expressly excluded. This clearly illustrates that such negative limitations do, in fact, introduce new concepts."

Claim Rejections - 35 USC § 102

Claim Rejections - 35 USC § 103

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

10. Claims 1-5, 8-10, 15, 17, and 24, are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Li (US 6,485,794 B1).

A. Claims 1 and 24

i. Li teaches the application of a single coating (i.e., paint) to a plastic container substrate. One preferred formulation of the coating material is

exclusively UV-curable (satisfies new claim 24) [3:25-26]. The coating material includes up to about 99 wt.-% (inclusive of the claimed 30-60 wt.-%) of a film former that may be an "acrylic urethane" and/or a "urethane acrylate" copolymer [3:44-4:3]. The coating material further includes preferably about 0.5-5 wt.-% of a photoinitiator [4:59-5:28].

ii. The coating material also includes a wax dispersed in a solvent [4:4-42]. One example is carnauba wax emulsified in tripropylene glycol diacrylate. Li does not expressly state that at least a portion of the solvent evaporates at a temperature between 40-60°C. It is the Examiner's position that any liquid solvent, such as those listed by Li, at the liquid-air interface, exists in a state of equilibrium between liquid and vapor. In this sense, there is always some evaporation of some portion of the solvent, and this limitation of the claim is satisfied. Further, Li does not expressly state that the wax serves to orient the filler. It is the Examiner's position that the presence of the wax inherently serves to orient the filler since the molecules of wax and solvent define occupy a region in the coating that the filler cannot simultaneously occupy. As such, the wax serves to define where the filler may/may not be in the coating, thus reading on "orienting" the filler.

iii. Li further teaches the presence of a filler [6:38 ff.]. While this reference does not expressly teach the presence of leveling additives, it is the Examiner's position that the filler and other disclosed compounds [5:30

ff.] such as viscosity modifiers, solvents, surfactants, and coating aids, serve to influence the leveling properties by affecting the flow characteristics of the coating, such as viscosity, and read on the claimed "leveling additives." In the alternative, leveling additives are known in the art and would have been obvious additives to give desired coating characteristics such as flow and surface coverage.

B. Claim 2

i. Li discloses aromatic urethane acrylate [3:61].

C. Claim 3

i. Insofar as a urethane acrylate includes both urethane and acrylic functional groups, it may be considered as satisfying the limitations of this claim.

D. Claims 4 & 5

i. Li teaches that the film former may be a blend of urethanes, acrylics, epoxies, and melamines [3:44-46].

ii. Such a disclosure readily envisions a composition including, in addition to the urethane acrylate copolymer, additional acrylic resin. Since such an acrylic resin will necessarily be reactive with the other acrylic and urethane components of the composition, it may be considered to satisfy the limitation requiring a monomeric reactive diluent.

iii. Further, the disclosed additional compounds such as polyester acrylate may be considered as having two types of functional groups,

ester and acrylic, thereby satisfying the limitations requiring multi-/bi-functional reactive diluents.

E. Claims 8-10

i. As noted above, Li teaches thixotropic agents. These agents may also be considered anti-settling agents as they serve to thicken the composition, decreasing the flowability thereof, and inherently serving to make the settling of components due to gravity more difficult.

ii. The thixotropic agents are silica-based [6:26 ff.].

F. Claim 15

i. Li teaches the presence of at least one photoinitiator, from which can readily be envisioned two photoinitiators, thereby anticipating the limitations of this claim.

G. Claim 17

i. Li teaches application to a substrate and UV-induced crosslinking [6:59 ff.].

11. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Li et al. (US 6,485,794 B1), as applied to claim 10 above, further in view of Kimpel et al. (US 6,508,922 B2) and Shiraga et al. (US 5,378,275 A).

A. While Li teaches that the silica-based filler may be treated silica [6:40], this reference does not specify the claimed oxide-coated mica filler.

B. Kimpel teaches that it is known to incorporate as a pigment/filler, into a coating composition, coated mica [4:1 ff.]. Shiraga teaches that a known example

of coated mica that may be added to a coating composition is mica coated with titanium dioxide or iron oxide [2:46 ff.].

C. Since Li does not specify the type of treated silica that may be used, one of ordinary skill in the art would have looked to the prior art for suitable examples of such a compound. The combined teaching of Kimpel and Shiraga would have suggested to one skilled in the art the use of titania- or iron oxide-coated mica. One skilled in the art would have been motivated to do so by the desire and expectation of successfully altering the viscosity of the composition.

12. Claims 12, 13, 16, 19, and 21, are rejected under 35 U.S.C. 103(a) as being unpatentable over Li et al. (US 6,485,794 B1).

A. Claims 12 & 13

i. Li teaches that the coating composition may additionally contain colorants.

ii. It is the Examiner's position that pigments are well-known in the coating art as a means of providing color to a resinous coating and would have been readily obvious to one skilled in the art.

iii. With specific respect to claim 13, Li teaches that the composition may additionally contain an epoxy-acrylate resin in addition to the other acrylate monomers [acrylated bisphenol-A epoxy resins, 3:55 ff.], which, with pigment added thereto, reads on the claimed base.

B. Claim 16

i. As noted above, Li teaches the presence of two photoinitiators.

ii. While the two claimed photoinitiators are not expressly taught, it is clear that any known photoinitiators can advantageously be used in the curing of the composition. Consequently, the limitations of this claim are obvious.

C. Claim 19

i. While not expressly taught by Li, it is known in the art to adjust the viscosity of a sprayed coating material by dilution thereof with solvent. Such facilitates passage of the coating material through spraying equipment (i.e., prevents clogging).

D. Claim 21

i. While not expressly taught by Li, flashing-off at elevated temperature prior to curing is well-known in the coating art. Applicant has not traversed this position of the Examiner's, first presented in the Office action mailed Dec. 20, 2006.

13. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Li et al. (US 6,485,794 B1), as applied to claim 17 above, further in view of EP 1 129 785 A2.

A. As noted above, Li teaches the application of the coating composition to a plastic container substrate.

B. While Li teaches application by spraying [6:60], Li does not expressly teach electrostatic spraying thereof.

C. EP '785 teaches a process whereby a coating composition is electrostatically applied to a plastic container substrate.

D. Based on this teaching, it would have been obvious to one skilled in the art to modify the process of Li so as to apply the coating electrostatically. One skilled in the art would have been motivated to do so by the desire and expectation of successfully applying the coating.

14. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Li et al. (US 6,485,794 B1), as applied to claim 17 above, further in view of EP 1 129 785 A2 and Lederman et al. (US 3,846,223 A).

A. As noted above, it would have been obvious to one skilled in the art to modify the process of Li so as to apply the coating material electrostatically.

B. Neither Li nor EP '785 expressly teaches application of an electrostatic primer in order to facilitate painting.

C. Lederman teaches that it is known that a plastic, non-conductive substrate may be electrostatically painted by the prior application of a conductive primer coating by non-electrostatic means, followed by the deposition of the coating material by electrostatic means [1:45-50].

D. It would have been obvious to one skilled in the art to modify the process of Li so as to apply the paint in this fashion motivated by the desire and expectation of successfully achieving coverage of the substrate with the coating material.

Allowable Subject Matter

15. Claim 23 is allowed.

16. The following is an examiner's statement of reasons for allowance: The reasons remain the same as set forth under this heading in the prior Office action. Claims 7, 14, and 22, while rejected under 35 USC 112, 1st Para., above, contain allowable subject matter as the prior art neither teaches nor suggests the limitations of these claims.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William P. Fletcher III whose telephone number is (571) 272-1419. The examiner can normally be reached on Sunday, 5:00 AM - 12:00 PM and Monday through Friday, 5:00 AM - 3:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy H. Meeks can be reached on (571) 272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/William Phillip Fletcher III/
Primary Examiner, Art Unit 1792